and one 500 mg. No further improvement was apparent after 14 days. These two men and four of the remaining six treated with ceftriaxone 500 mg in whom no further response was observed after 14 days were deemed treatment failures and started on co-triamoxazole with good effect. Two men seen after 7 days in whom no Donovan bodies were detected defaulted from further follow-up.

Ceftriaxone is a useful drug in the treatment of sexually transmitted disease in the developing world and has proven efficacy against penicillinase producing *Neisseria gonorrhoeae*, chancroid and syphilis.[6] In the single doses used here, ceftriaxone did not achieve a cure for donovanosis although the initial improvements observed suggest that increased doses at more frequent intervals could be effective.

NIGEL O'FARRELL
City Health Sexually Transmitted Disease Department, King Edward VIII Hospital, Congella, Durban, South Africa

Address for correspondence: Dr N O'Farrell, Lydia Department, St Thomas' Hospital, London SE1 7EH, UK.

1 Cameron DW, Simonsen JN, D'Costa LJ, *et al.* Female to male transmission of human immunodeficiency virus type 1: risk factors for seroconversion in men. *Lancet* 1989;ii:403–7.
2 Piot P, Meheus A. Genital ulceration in the tropics. In: Harris JRW, Oriel JD, eds. *Recent Advances in Sexually Transmitted Diseases, Vol. 3.* Edinburgh: Churchill Livingstone, 1986: 175–183.
3 Coovadia YM, Kharsany AB, Hoosen AA. The microbial aetiology of genital ulcers in black men in Durban, South Africa. *Genitourin Med* 1985; 61:266–9.
4 O'Farrell N, Windsor I, Becker P. HIV-1 infection among heterosexual attenders at a STD clinic in Durban. *S Afr Med J* (in press).
5 O'Farrell N, Hoosen AA, Coetzee KD, van den Ende J. A rapid stain for the diagnosis of granuloma inguinale. *Genitourin Med* 1990;66:200–1.
6 Le Saux N, Ronald AR. Role of ceftriaxone in sexually transmitted diseases. *Rev Infect Dis* 1989;11: 299–308.

Accepted for publication 3 January 1991

Molluscum contagiosum: possible culture misdiagnosis as herpes simplex

The diagnosis of molluscum contagiosum is usually easily made by observation of the waxy umbilicated lesions. The classical central punctum may be more easily seen during thawing following liquid nitrogen application. However, the lesions may sometimes be atypical and difficult to distinguish from warts or other skin and mucosal lesions. Tiny or ulcerated molluscum lesions may mimic herpes simplex.

Molluscum contagiosum virus (MCV) can cause a cytopathic effect (CPE) in some tissue culture lines,[1] although this is not widely known (and indeed was not initially known to us). In our laboratory we have observed that MCV can cause a CPE in both MRC5 and monkey kidney cells; both cell lines are used in the isolation of herpes simplex virus (HSV). The CPE of MCV disappears with first passage but that of HSV evolves more rapidly and can be passaged. HSV type 2 generally produces more marked ballooning of cells when compared with HSV type 1 and MCV. Our laboratory does not routinely perform serial passage, immunofluorescence (IF) or electron microscopy (EM) on specimens causing a herpes-like CPE.

In an attempt to determine how often MCV produced a CPE we swabbed classical molluscum lesions over a 3 year period. Swabs were sent to the laboratory in transport medium requesting herpes virus culture. The specimens were inoculated onto tissue culture, the laboratory worker being unaware of the diagnosis. Nine of 19 swabs yielded a CPE and were reported as "herpes simplex virus isolated".

We present a case history to illustrate how misdiagnosis might arise from swabbing atypical lesions.

A 22 year old female with no past history of genital herpes or molluscum presented with a slightly tender vulval lesion of two weeks duration. On examination an indurated crusted lesion 0·5 cm in diameter was present on the left labium majus. A swab was taken for herpes culture. The laboratory reported the isolation of herpes simplex virus from observation of a CPE but did not perform confirmatory tests on the cytopathic agent. The aetiological agent of the lesion in this patient may have been MCV or HSV.

It is important that misdiagnosis between HSV and MCV is not made. It has been suggested previously that specimens producing a CPE that will not serially passage should be submitted for further confirmatory tests.[2] In our laboratory resources are limited and therefore it is important that the clinician states on the request form whether the appearance of a lesion is atypical so that the laboratory can selectively investigate further any CPE to confirm or refute HSV. This should avoid potentially serious misdiagnosis.

We thank Mr Clive Balaam for performing the viral cultures.

J L HOVENDEN*
T E C BUSHELL
Department of Genitourinary Medicine, Royal West Sussex Hospital, Broyle Road, Chichester PO19 4AS

*Corresponding author. Present address: Department of Medical Microbiology, University of Wales College of Medicine, Heath Park, Cardiff CF4 4XN, UK.

1 Neva FA. Studies on molluscum contagiosum: observations on the cytopathic effect of molluscum suspensions in vitro. *Arch Int Med* 1962;110:720–5.
2 Dennis J, Oshiro LS, Bunter JW. Molluscum contagiosum, another sexually transmitted disease: its impact on the clinical virology laboratory. *J Infect Dis* 1985;151:376.

Accepted for publication 31 January 1991

Syphilis and the elderly

A 91 year old man, veteran of the two world wars, wanted to emigrate to join his daughter when routine serological tests for syphilis showed the following results: VDRL—positive; TPHA—positive and FTA—positive. To avoid any question of human error repeat blood tests on a fresh sample produced identical results, which were subsequently confirmed by the Reference Laboratory.

After the death of his first wife nearly fifty years ago he remarried. During counselling he denied being sexually promiscuous or having any homosexual tendency in the past. Full physical examination and other pathology tests revealed no other abnormality. The patient was not demented and in view of his age and his desire to leave the country as soon as possible, no lumbar puncture was done to analyse his CSF. After completing a course of procaine penicillin therapy as advised by the

genitourinary clinic consultant, he was allowed by the physician at the High Commission to go ahead with his proposed visit and eventual permanent settlement in the host country. This case re-emphasises the importance of undiagnosed syphilis in the elderly.[1 2]

However, sexual abuse of the elderly must be kept in mind in this context. A moving case of syphilis in a 68 year old lady after rape has been well documented.[3] So also has the diagnosis of syphilis been reported in two elderly female patients, one in coma, following possible sexual abuse, as serological tests performed six months previously on one, and three years earlier on the other were non-reactive.[4] Moreover, screening tests for dementia in a home for the elderly revealed three cases of neurosyphilis with positive serology.[2] Perhaps this is a solemn reminder of how little is known of this problem in the elderly.

B CHATTOPADHYAY
Public Health Laboratory and Department of Microbiology, Whipps Cross Hospital, London E11 1NR, UK

1 Woolley PD, Anderson AJ. Prevalence of Undiagnosed Syphilis in the Elderly. *Lancet* 1986;ii:1034.
2 Gaman WN. Screening test for dementia in personal care home. *Can Med Assoc J* 1984;130:106.
3 Bierman SM. A piece of my mind: the 'terrible' question. *JAMA* 1985;253:No 5, 641.
4 Luke EA Jr. Syphilis in the elderly. *JAMA* 1985;254:No 13, 1722–3.

MATTERS ARISING

Sexually transmitted diseases in rape victims

We read the report of Estreich *et al*[1] on victims of sexual assault with interest and can confirm findings of similar rates of STD in such victims referred by a police surgeon in Leeds.

In a 24 month period after July 1988 52 female victims of sexual assault (mean age 19·5 yr, range 13 to 48) were referred by a local police surgeon and attended the Department of Genitourinary Medicine, Leeds between 3 days and 4 weeks after the incident.

Fourteen women (28%) had a sexually transmitted disease (seven *Chlamydia trachomatis*, two *Neisseria gonorrhoeae*, five *Trichomonas vaginalis*). A further six women had non specific cervicitis and four had abnormal cervical cytology (two had CIN, the other two defaulted from follow up). Interestingly four of eleven women who were examined within 96 hours of assault had an STD indicating that such women may be at risk from pre-existing STD.[2] There were no cases of genital warts, herpes simplex or syphilis. All women were counselled for HIV and 11 specifically asked to be serotested mainly because of fear of acquisition of infection. None had any defined high risk factors but in only two cases were the assailants recognised. All serological tests for HIV were negative.

Prior to 1988 very few cases were referred from the local police surgeons. Since then we have developed excellent links with one who examines the majority of assault victims and these now constitute an important source of referral of such women to the department. Local women police constables have taken a supportive role and often accompany victims to the department if requested. A review of all rape cases a few months ago indicated infrequent referrals by voluntary organisations (such as Rape Crisis) and we have now instigated closer links with these groups with a consequential increase in numbers seen. These organisations regularly change personnel and it is therefore important to audit cases of sexual assault that are referred on an ongoing basis, and to maintain a dialogue, so that such women, who have high rates of genital infections, continue to be offered the essential screening services provided by genitourinary medicine departments.

S P R JEBAKUMAR
P A DE SILVA
E F MONTEIRO
Department of Genitourinary Medicine, The General Infirmary at Leeds, Great George Street, Leeds LS1 3EX, UK

1 Eistreich S, Forster GE, Robinson A. Sexually transmitted disease in rape victims. *Genitourin Med* 1990;66: 433–8.
2 Jenny C, Hooton T, Bowers A, *et al. Sexually transmitted diseases in victims of rape. N Engl J Med* 1990;322: 713–6.

A rapid stain for the diagnosis of granuloma inguinale

The paper entitled *A rapid stain for the diagnosis of granuloma inguinale*[1] is a welcome addition to the existing procedures. It is, therefore, worthwhile to utilise it for rapid diagnosis of the disease. However, this has its limitations for in only 38% of donovanosis is it positive. In 62% it is not of help. Consequently it has major limitations as a diagnostic tool. It is, therefore, imperative to "suspect" the diagnosis of donovanosis on the basis of morphological characteristics of the ulcer.[2 3] Despite the clinical features being cardinal, the condition may have to be differentiated from chancroid/chancroidal ulcer,[4] primary chancre, herpes progenitalis, and squamous cell carcinoma. In fact, at this centre it is customary to make the diagnosis by undertaking a battery of tests to exclude aforementioned genital ulceration. These tests include: dark-ground microscopy for *Treponema pallidum*, gram-stained surface smear for *Haemophilus ducreyi*, Giemsa-stained surface smear for giant cells/balloon cells for herpes progenitalis, Giemsa-stained tissue smear for demonstration of intra-mononuclear Donovan bodies, haematoxylin-eosin stained tissue sections to establish the histological features of donovanosis[5] and to exclude squamous cell carcinoma, and demonstration of Donovan bodies in tissue section using slow Giemsa (overnight) technique,[6] serological diagnosis of syphilis, attempt to recover *Haemophilus ducreyi* on culture.

The clinical diagnosis, supplemented by these procedures improve the diagnostic success to almost 100%.

It is worthwhile to highlight the slow-Giemsa (overnight) technique,[6] in which the tissue sections are placed in a 10% Giemsa-stain for 17 hours. It was possible to demonstrate Donovan bodies in 95% of the cases. The Donovan bodies were found distinctly and in large numbers in the mononuclear cells (intra-cellular). Furthermore, it was easy to demonstrate multicystic cells containing Donovan bodies, well recognised as cells of Greenblatt.

VIRENDRA N SEHGAL
Department of Dermatology and Venereology, Lady Hardinge Medical College, New Delhi 110001 India